# History of the Stone Age and Ages of Prehistory in Southern Arabian Island

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#### Abstract

This chapter is distinguished by examining the studies of the Neolithic period in southern Arabia. This is done through a brief review of the division of the history of the aforementioned age studies in Yemen. Which consists of more than one stage. Which contributed to highlighting the great cultural diversity found in the Neolithic era and the Holocene era in general in the south of the island. Therefore, this research has contributed to the origins of this diversity. In addition to reviewing the different stages that the study searched during the prehistoric period in the peninsula in the first half of the twenties of the fifteenth century AH. This is to ascertain the location of the Arabian Peninsula and its strategic location in many stages of prehistoric times. It represents a link between the three continents of the ancient world. In addition. the peninsula is characterized by the diversity of terrain and environment, which are among the most important main elements that played a major role in human life in those ages and in the redistribution of its sites from one era to another. And this was according to the different climatic changes that prevailed in that period.

Keywords: pottery, agriculture, stone ages, archaeological remains, the Arabian Peninsula.

# Introduction

We have to note the delay in archaeological studies, especially prehistoric studies in the peninsula, and its various factors. The most important of which was that the largest part of the Arabian Peninsula is considered a desert area, and it was difficult to traverse it during that period, and this created a misconception among some of them. Therefore, the scarcity of the population in it is compatible with the lack of central authorities and the arid nature, and they made the search process unsafe. As for the second reason, it was due to the absence of widespread sites from the sites of the historical stage in the greater part

of this decertified part. During that period, the sites were confined to its southern outskirts, represented by the sites of the Sabaean civilization. And the eastern one represented in Dilmun. And the northern one, which is represented in Taima and Dumat al-Jandal Adumato. And the northwest, which is represented in the sites of Lihyaniya and Dadan. This is what put the entire Arabian Peninsula in that period with the knowledge of the archeology of the Torah. His research circle included the Near East region, especially the Levant, including Palestine, with more specificity for religious reasons. While the third reason was due to the Bedouin lifestyle in the aforementioned part of the Peninsula during that period. Which proved an idea that was widely promoted by researchers for many reasons, that the Arabian Peninsula is devoid of the elements of civilization. This idea has been greatly exaggerated in portraying the people of this region in the West in a bad light. While the fourth reason is that the early travelers and explorers were not only few, but they were interested in the ancient letters of writing. Some of them were interested in that period in researching the influences of Greek and Roman civilization on the centers of civilization in the peninsula. Therefore, archaeological research in that period was dominated by English colonialism in both the south and east of the Arabian Peninsula. Therefore, this study will shed light on many elements of the stone tools discovered in that period, such as pottery, chisel tools, and many others.

#### Pottery

The Bronze Age culture in Yemen is the Neolithic culture. It was characterized by civilizational manifestations that appeared for the first time, the most important of which are agriculture, pottery and minerals. Also, the settlements in that period have become the largest area at the level of a village or a city. Therefore, the process of domestication has been widely continued, given that these rapid changes are what characterized the culture of the Bronze Age, and this did not appear simultaneously. Despite this, it did not coincide with the civilizational development of the Bronze Age societies in southwest Arabia. Therefore, the culture of the Bronze Age in Yemen can be clarified through the work of archaeological missions that worked in various regions of Yemen. Where its results showed the culture of its nature and its advantages, which were represented in pottery. (1)

The study of pottery in Yemen is one of the most important studies that researchers and archaeologists have paid attention to until the present time. Therefore, until today, there is no comprehensive study that shows us the beginning of the emergence of pottery, how it developed, and the chronology. Therefore, the advantages of pottery are still of great importance in our lives. But we have to study it by referring to various sources and references. And it is one of the advantages of the pottery of each of the eras that the ancient Yemeni civilization passed

through since prehistoric times, which is not defined or clear-cut, compared to the pottery of other urban areas in the ancient Near East, such as the Levant, Mesopotamia and ancient Egypt. Therefore, the matter is due to the scarcity of systematic excavations in the sites of southern Arabia for a long period of time, in addition to studying the pottery of each of those sites independently and not comparing it also with the pottery of other sites in order to form a general picture of the characteristics of the pottery of each era. In addition to clarifying the local characteristics of the pottery of each region because it differs from the other. Pottery is also characterized as every object made of clay, whether other materials were added to it or not. Each form of pottery is characterized by the fact that it goes through the stage of forming, then drying, and finally it is based on strengthening the pottery by exposing it to a temperature that may reach 1300 or more, and in the last stage the clay turns into pottery. He also knew that man had used pottery since the Neolithic period. Where its beginning in some areas goes back to a stage that preceded the domestication of animals and the practice of agriculture. As the first references to it come from sites in southwestern Japan dating back to approximately 12000 BC. In the Near East, it was known from the site of Shul Huyuk in Anatolia, in layers dating back to the seventh millennium BC. In Africa, it was discovered by sites in the Sahara desert dating back to the ninth millennium BC. (2)

It is also a natural result of the lack of many systematic researches and the scarcity of archaeological excavations in Yemen. Many researchers saw that pottery was one of the most important sources around which many questions were raised, especially pottery in the Bronze Age that was found in the settlements of the highlands. Especially those that were located in the Khawlan region and the Dhamar Plain, which is distinguished as one of the oldest evidences of the emergence of pottery in the south of the Arabian Peninsula, and was the main reason that made it one of the characteristics of that era. As the pottery industry entered the south of the Arabian Peninsula from other countries of the ancient Near East, despite their pointing out that there are no indications showing the existence of many civilizational contacts in those regions that distinguished the regions and Yemen in that period. The fact of the matter is that it is not possible to definitively and definitively confirm this issue, because the study of prehistoric times in ancient Yemen is still in its infancy, and the research did not cover all the sites that date back to those ages. Thus, information about pottery is scarce and needs more effort by researchers and prospectors. (3)

Therefore, a number of settlements located in the Dhamar Plain have been excavated, including the site of Jabubat al-Jurf. During that period, remains of buildings that had been inhabited for a long time were found, and next to them were pottery shards. The carbon date of the site was determined at that period, and that was radiocarbon dating, and that period was from 3350-3100 BC. These fractures were among the oldest

indications of the presence of pottery in the highlands in the south of the Arabian Peninsula in general until the present time. In addition, other fractures were found during that period at the site of Haid Al-Sawad in northern Dhamar, along with many small tools made of flint dated to the period 2870-2500 BC. M. Its quantity at that time was unlimited and did not allow for a statement of its general characteristics and advantages. (4)

In addition, some Parthian pottery has been found in the Jubail region. But they did not report a Parthian operation in the eastern region, unlike the hundreds of coins of copper and silver that were found during the reign of Alexander. There is also in the eastern region similar to the coarse Sassanian Di Kurdi ceramics from northern Oman. The only pottery available in that period dates back to the pre-Islamic period. Where it was narrated that it was in the Al-Ageer region, and it is a mug 20 cm high, and it was found in the far north of the Gulf, i.e. north of Al-Ageer. Therefore, it is assumed that it is a wreck of the ship, and it may have disappeared into hiding from the local and famous pirates before it reached Ugair, and this matter does not indicate the history of Jubail. As for the location of the village head, it is the point of the salt mine, and it was located in the traffic spot, and it was a very poor place. It appears, in fact, that it did not coincide with the remarkable growth of pottery of the Sasanian period on the sea floor in the intertidal zone at the base of the site. A ring of the Sasanian style was found in the south of the airport, and it was stated that it was of red antique. There were also many chariots represented by different cup marks and a hollow board for the game of Al-Qadiryat or Al-Mandira. Also, the main area in that period was associated with sporadic discoveries of Sasanian hidden artefacts located 5-15 km southeast and southwest of Jubail, which were found in the southeast of Jubail. It is distinguished by its striped decoration, which resembles the allegorical pieces of a Sasanian site. It is located approximately halfway between Tayyip Yahya and Bandar Khomeini. It was found 8 km southwest of Jubail, two stamps of two large jars. (5)

The importance of the study of pottery is also distinguished because it is the first historical indicator that contributes to helping the history of archaeological sites, a relative history by means of subordinate and corresponding, and an absolute history by means of thermo luminescence. As well as knowledge of the cultural development witnessed by the region or society. Pottery also reflects the technical and artistic level reached by the ancient society. In addition, the pottery is characterized by reflecting the technical and artistic level reached by the ancient society. It is also characterized by the fact that it reflects the cultural links between ancient societies and the functional aspects by virtue of the mission it performs in the life of society. Talking about pottery and its importance in the Bronze Age in ancient Yemen may be recognized through the work of archaeological missions. (6)

First: Pottery in the Eastern Highlands:

In the early eighties, the Italian archaeological mission carried out many archaeological works in the eastern highlands. Which made her detect a large group of pottery. And that was through the excavations that took place in the White Najd site, in the Wadi Bana'im site, the Ragla site, and many optional probes in the Musanna No. 1 site. Therefore, when we study the pottery assemblages that were found, it became clear to all of us that the pottery was made by hand and was characterized by thick, rare and thin bodies, while its structure was fragile and incoherent. This is due to the coarse mixture that is added to the dough, which is represented in mineral elements such as sand and granite, or plant elements such as grains. In addition, the pottery may be poorly fired and may vary in color from brown, dark grey, yellow, orange, pink and dark brown. While the inner surfaces were treated with a soft coating of pure clay, in contrast to the outer surfaces, which did not show any signs of elaborate treatment. Therefore, in general, there are many grooves of sand grains that arose as a result of the maker's hand passing and rubbing against those surfaces. The decorative patterns were also represented by horizontally grooved grooves and deep prints with a pair of rows of dots (7).

Second: Pottery in the Central Highlands

Various excavations at the sites of Hammat Luban in the central highlands and Wahid al-Sawad, dated to the third millennium BC, revealed that there are many different pottery shapes that were made by hand. Where the mud of most of the pottery fragments was mixed with grains of sand, and sometimes it was mixed with one crumb, or with straw, or with straw of brown, gray, and brown to red color. Most of its surfaces are dark gray, and this may be due to the incomplete oxidation process. The decoration is limited to a few examples based on lines of grains of wheat in wavy volumes, in the form of a comb pattern, a grooved or cut pattern, and tapestry or basketry prints. This decorative technique is similar to other sites in Khawlan al-Tayyal. In addition to the color decoration, the first examples of colored decoration can be found in Dhamar. Thus, it has been shown that the pottery of the central highlands is very similar to the pottery of the Bronze Age in the eastern highlands. This indicates the processes of civilized communication that date back to the Bronze Age. (8)

## Third: Pottery in the coast of Tihama

In addition, excavations were carried out in the sites of the Tihama coast, as evidenced by the Saber site in the lower layers of Saber 8A and Sabr 2C, and in the site of Amaliba in the layers. As the pottery that was found on this coast is characterized as being handmade and locally made, with molding and rotating to make the edges and bases, and the pottery wheel may have been used for the process of making the edges

and bases. This necessarily indicates the use of a double technique represented in the hand industry and the pottery wheel in the pottery industry in Tihama. The pottery of the Tihama coast was also characterized by good firing, and as a result, its red-brown colors showed creativity in it. It also had the good rubbing feature from the inside and outside, and the common decoration appears with grooves, printing, colors, and horizontal and vertical lines (9).

Therefore, one of the distinguished pottery sites on the Tihama coast is the site of Sabr, which is distinguished for being one of the oldest and largest pottery groups discovered in Yemen. Where thousands of pottery fragments and hundreds of complete pottery vessels were found. This was due to the presence of many factories for the production of pottery at the Sabr site. Therefore, hundreds of complete pottery vessels were found, which is natural evidence of the pottery's cohesion on the Tihama coast as a result of the good burning degree, which may reach 1200 to 1300. (10)

#### Pottery in Shabwa:

It is also noted in the old Shabwa site by sounding No. 2 and Level 3, where most of the pottery made of mud mixed with straw and sand was found in red and light brown pottery. Most of it was made of red pottery, in addition to many pottery vessels that were made by hand, most of which have small holes and thick walls, and sometimes they have many decorations. Where the third level dates back to the middle of the second millennium BC, according to a reading of carbon 14, which is consistent with the pottery of the detention pit at the Sebal site in the central highlands. Therefore, it becomes clear that the pottery of Shabwa is necessarily similar to the pottery of the Bronze Age at the sites of the Dhamar Plain and the sites of Khawlan al-Tayyal. This necessarily refers to the process of civilized contact dating back to the Bronze Age between Shabwa and the eastern and central highlands. Thus, we can say that the pottery of the eastern and central highlands and Shabwa is distinguished in terms of manufacturing technology, filling and surface treatment.

Therefore, it becomes clear to us that the pottery of the Bronze Age in ancient Yemen was characterized as being locally made and made by hand, with the exception of only the Tihama coast pottery, which may have used the wheel in addition to the handcraft. The type of clay, the material mixed with the paste, and the varying degree of firing had a greater impact on the quality of the pottery industry in ancient Yemen. Therefore, it is noticeable that the pottery of the sites of the eastern and central highlands and Shabwa is distinguished by its heavy weight, thick body, incoherence, poor burning, and a degree of roughness on its surfaces. In addition to that, there is a case of decoration, of course, and incised engraving, unlike the pottery of the Tihama coast, which was distinguished by its light weight, thin body, and cohesiveness, but it was

subjected to high temperature and had a good surface treatment. Therefore, we can say that the pottery of the Tihama coast sites is one of the most important and strongest types of pottery in the Bronze Age in ancient Yemen, for the various reasons already mentioned above. (11)

# Chisel Tools

There were many stone tools and chisel tools that are used in cities and civilization centers or in the era of civilizations. Which emphasizes the importance of these tools in the stone ages and in the Arabian Peninsula. Where these tools are found in many of these cities and centers, however, the archaeological study in them is unbalanced. Mostly it was devoted to the fields of writing, architecture, pottery, coins, arts, and others. Therefore, these tools may be the reason for cultural relations and communication between societies. Especially in the era of civilizations, with little interest in stone tools, which may be considered less vulnerable than others in this aspect relatively. Stone tools were distinguished as an important archaeological source, and it cannot be ignored as long as these tools exist, even in the light of the life of civilization and the presence of writing. Therefore, it is fortunate for the student to have these tools in light of the many complex problems in this period. In addition, we must emphasize the stone tools visible on the surface as well as the rest of the other parts of the site itself. Where the excavation process was in the different sites located in the same region, in which no excavations were carried out in general, and an example of this is the tools that we found in many urban sites. It has been implemented in Wadi al-Juba, Ma'rib and al-Jawaf, and work was done on it without mentioning the existence of these tools. (12)

The technique of geometric chisel tools is also one of the most important forms of innovation in this transitional period. Although the introductions of this technology had already appeared in the Paleolithic era. The introductions to making great tools also appeared in the aforementioned era. These chisel tools, in particular, were suitable for the new lifestyle. Therefore, many chisel tools appeared on the banks of valleys and lakes in those areas. As it became extinct due to the melting of that ice. There were many large animals and plant eaters such as mammoths, rhinoceros, and many others in Europe, and they were replaced with the change of vegetation by small animals such as deer and other relatively small and fast-running animals. Birds also multiplied on the banks of those valleys and lakes, so the requirements of that new situation contributed to the emergence of this new type of tool. (13)

In addition, these tools were used to deal with the new vegetation cover. And that after they were grafted on pregnant women with their meat and made from bones and various organic materials, such as primitive sickles, which are among the composite tools that were used in harvesting crops for wild plants and cutting tree branches and roots of plants that humans introduced into diets. It is also one of those chisel

tools, hooks or hooks, which are relied upon in catching fish after they have been grafted on their meat holders, which are also made of organic materials. This was during the transitional stage of using the bow extensively, as evidenced by the large number of arrowheads. Including various chisel tools, which are believed to have been invented in the late Paleolithic era, as evidenced by the presence of sharp heads and arrowheads, including those with heels, especially the heads of the guilty and necked arrows. Approximately 39 necked heads related to the desert archaeological pattern were also found in Wadi Sna in Hadramout. These heads necessarily date back to the desert Neolithic period. Those who found these heads had crystallized the differences between the characteristics of the Neolithic period in Mahra, that is, the Mahri archaeological style and the desert archaeological style, which were found in the Hadramout plateau. And there were many examples of those heads. Where they attributed the heads bearing the letters 1-G to the desert archaeological pattern, although the head is distinguished by its dimension of the Mahri archaeological pattern, or at least it is three-faceted and is not based mainly on it in distinguishing the tools of the desert pattern, especially in such cases. While Head I is one of the most typical forms by all standards of the desert archaeological style, it was not affiliated with this style. (14)

As for the manufacture of chisel tools in the city of Shabwa, it is very strange that chisel tools did not receive much information about them in the city of Shabwa. Although we expect to find it at least in the lower layers of it, which preceded the emergence of formal stone architecture attributed to the Sabaeans, whether this was in the city itself or in its vicinity. Therefore, it is among the materials that were published in the service that it must be present with the rest of the other materials that were found. But it was described as a trimmed fragment of obsidian stone fragments that were used for cladding, like the rest of the ivory materials that were found with it in this aforementioned tar, or because they were inlaid or decorated with other materials, including furniture and various different artistic elements. This is also related to mosaic stones, although they are considered chisel geometric tools, the length of which is much less than 2 cm, and the shape is one close to the shape of a rectangle. And the last two are in the form of a trapezoid, one of which is for refinement on one of its ribs, and its features are explained in the drawing to a large extent. And if we take this refinement as well in order to establish the argument that this piece is one of the most important pieces of geometric chisel tools. At the same time, it is relied upon in order to demonstrate it, along with other aspects, although the last two pieces are also of the same category. Therefore, the aforementioned refinement consists of eight small dimples close to each other in amplitude or size and fused without breaks. And if we take for the same purpose as well some of what came in the last two pieces, then it is clear in them through the drawing as well. Therefore, the

aforementioned first piece has oblique scars resulting from the effects of using these pieces as tools, and it is likely that it is located on the transverse-shaped end, which is characterized as representing the supposed blade in the tool because it is the opposite end of the base. And the rib, which we assume to be thick and blunt at the very least, if not properly trimmed. (15)

In addition, there were many other tools associated with the desert style, which often leads to confusion between the tools of the Mahri style, or to consider some of them as representing a direction other than the direction of these two styles, and this necessarily applies to some tools in the Mahri style. In this study, we find that there are many new tools in the scientific country in the desert region and the western highlands. In addition to many models of drawings of the Neolithic Age, the Bronze Age, and the Sabaean period, in order to complete the comparison between them, and in order to identify the form, content, and Islamic writing related in terms of location to some of these drawings and to infer them, and at the same time on the succession of settlement in some places such as Wadi Zahr from the era The Neolithic through the Bronze, Sabaean, and Islamic ages, until today. Therefore, there is a great possibility in sorting out the tools of the Paleolithic and later ages. (16)

#### Agriculture

The civilization of Yemen is characterized by the fact that it relied heavily in its prosperity on the exploitation of the ancient Yemenis for the different geographical features of their country. One of the most important of these features was that the coasts of Yemen overlooked the Red Sea from the west and the Arabian Sea from the south, which is part of the Indian Ocean. This situation allowed them to mediate trade between India, the Far East and the Mediterranean basin. As one of the reasons for that prosperity was also the great demand for incense materials, the most important of which is frankincense, of which Yemen produces its types today. In addition to myrrh, which was involved in various vital industries, the most important of which was the mummification of the dead in ancient Egypt. Although the use of camels in trade caravans took place in the late eleventh century, the trade in incense and other materials produced by Yemen goes back much further. As the ancient Egyptian antiquities attest, but that coast was not an independent civilization, but that at least part of it was at one time belonging to Yemen. As a result of this popular trade, life flourished in ancient Yemen, and people in that period, long ago, paid attention to the reconstruction of the land and to work on its reclamation. Agriculture in that period was the backbone of economic and political life in the country. Many regions of Yemen, in the east and west, received many monsoon rains, continuously and abundantly, in all parts

of Yemen, as during that period valleys were spread in some of which water flowed throughout the year.

Traces of the ancient vast irrigation works are still spread in the valleys that have preserved their ancient names mentioned in the inscriptions, such as the valleys of Marib, Bejan, Markha, Jardan, Mayfa'a, Rakhiya, and Hadramout Valley, for example. It was during that period that there was the first attempt to study the ancient irrigation methods. Those carried out by Eleanor Gardner in 1937 AD in Wadi Amad, in which is located the ancient village of Madhab and its temple of the moon god. In his book The Plant of Sheba, Albi spoke about the various barriers in the water that he saw in the valleys and said that they are the remains of ancient dams. In addition, agriculture in the valleys was characterized by the fact that it relied heavily on torrential rains, which are the collected waters after the rains in the highlands, which flow down into the valleys, some of which are directed towards the sea and others towards the desert. Where no one can predict the quantities of water that the torrent will come with, nor the timing of its occurrence, even in places where the rains during that period are regular, but this varies from one season to another according to the different abundance of rain. Therefore, the old traditional irrigation system did not aim at that period to store the flood water, but rather aimed at distributing it as quickly as possible and also seeking to benefit from it to the maximum extent possible. (17)

Agriculture is also characterized by being closely related to climate. The climate in that period was different in its elements and different in many factors that affect the formation of geomorphology of the earth's surface in general. It is also considered a non-fixed factor for any region on Earth's surface. This has resulted in many changes in erosion factors and weathering factors that contribute significantly to shaping the general topography on the surface of the earth. This region was characterized by a semi-arid climate. Therefore, the temperature, precipitation and wind were distinguished as the climatic elements that affected the formation of the land surface aspects of the region. Therefore, the geological and archaeological evidence has been closely associated with the abundance of vegetation and the presence of water. This has formed suitable climatic and environmental conditions for stability. And it doesn't just stop with humans. This is indicated by human settlements, rock paintings, natural caves, and mammal bones, which were actually found in the hibernating Muammar Cave from various bones of a group of different animals, including rhinos, deer, carnivores, and various mammals, whose approximate date dates back to the Middle Holocene era. . In addition to the various landmarks and evidence that necessarily indicate that the climate prevailed in the Sana'a Basin region from the fifth millennium BC until the third millennium BC.

The soil of the Sana'a Basin was characterized as fertile soil with a medium soft texture containing various crumbs such as lava and alluvial sandy sediments, the thickness of which ranges from 30 to 60 meters. It was also characterized by the presence of a large group of organic soils, consisting of mixed to sandy soils, muddy soils, and sandy-mixed soils, most of which were accompanied by erosion factors from the areas surrounding the bottom of the basin, which is also characterized by the full storage of large quantities of groundwater, and it is a suitable fertile volcanic soil. To grow various fruits, vegetables and grains.

Also, despite the scarcity of natural vegetation at the time of the study due to the lack of rain and the predominance of a dry climate, the Sana'a basin area was distinguished in that it was one of the basins in which the natural vegetation varied, whether at the bottom of the basin, which is located at a level of less than 2500 above the surface level. The sea or the mountain peaks surrounding the basin, which reach a height of 2,500 meters above sea level. Where there are different types of trees, including acacia, turpentine, sidr, kardh, tamarisk, carob, fig, and thorny plants. Hence, this cover is characterized by the fact that it is based on the formation of deep valleys. The region at that time was rich in many grasses that provided pastures for animals. This is what was shown to us by the rock drawings that spread throughout the study area. (18)

The economy in the Bronze Age settlements in ancient Yemen was also characterized by many climatic changes that began at the end of the Neolithic period and continued until the Bronze Age. It was also affected by many of the economic activities of those settlements in the various regions in which the highlands were found, such as the eastern plateau and the coastal areas, with those changes that formed in that period the features and characteristics of the life of the person who lived in that era. These areas were characterized by diversity from one region to another. Where he did not quit hunting and continued to practice it, even partially. In addition to practicing agriculture, animal husbandry, various industries and commercial activity. Also, by studying the economics of the settlements of the highlands, especially the soil samples, grain prints were identified on pottery and architectural remains. It notes man's knowledge of agriculture and its practice since the end of the fourth millennium BC. Where he practiced it on a larger scale and formed what is known as the first farmer societies. In addition to his practice of hunting and grazing animals, especially sheep and goats. Archaeological evidence also appears in the settlements and highlands that are based on the gradual and accumulation of experiences in human dependence on agriculture as a main source of food. A number of the sites of that era located in the Bidbidah region, especially in the site of Najd Jabr, which had many agricultural villages, were divided according to their activities into two types, which are the large agricultural villages that were distinguished by their proximity to the fields and their connection to them. In addition to the small villages

that were built on the terraces of the valleys, in which many tools were found, such as mills and mills, which indicate their practice of agriculture and their dependence on it. This is despite the fact that no grain remains were found during excavations of the sites. Evidence also indicated that they raised animals. (19)

In addition, the archaeological finds that were found at the site of Wadi Yana'em indicate an advanced stage of agricultural activity that the population has reached. Many tools for grinding and crushing were also found, and they numbered more than 150 tools. Flint harvesting tools were also found, including chips, slivers, and scrapers, which necessarily indicate the population's knowledge of advanced food production techniques. There was also a state of great and strong dependence on agriculture mainly, so that tools indicating hunting were not found at the site. Also, agriculture was known at that time in Yemen as rain-fed, dependent on water in the seasonal rains. Where it appeared since the beginning of the era in the settlements of the technical heights based on land reclamation in the manner of agricultural terraces. And that is on the sides of the mountains that are commensurate with the topography of those areas. Therefore, the remains of those terraces were found in a large number of sites, including the site of Himmat al-Qaa in Dhamar, in the form of collapsed walls built of stones for the period between 2000-1500 BC. Other amphitheaters were also found in sites near Sanaa and Wardman in Marib, dated from 3200-2900 BC. (20)

## Results

Through the foregoing, it is clear to us that from the totality of the various experiences, studies and observations on the things of contemporary people, the following becomes clear to us:

(1) That the use of natural stones served as tools. It is the path of higher primates. It is the normal situation that is seen in a large number of contemporary humanoids.

(2) That the human race is distinguished by being the only race that has reached the level of stone industry without others. This is based on the nature of this industry and the nature of activities related to it, which are characterized by great relevance and their aforementioned goals. This gender may have come from ancestors.

(3) The stone industry or chisel industry is the first evidence for the existence of man. This is regardless of whether or not the physical characteristics of this human being, which are considered among the characteristics of Homo sapiens, are close. And as the first manufacturer of stone tools. Considering those same tools more complex than others. This is in the event that it is compared to the manufacture of human

tools from materials that are organic, because it is more resistant than other materials to the factors of time.

(4) It is possible that some ancient humanoids in which some special conditions were met in order to carry out this process, as the stone industry borrowed from man and therefore did not reach him by itself. Evidence that there are many experiments that were conducted in a contemporary way, including those that possess some of the basic mental and physical ingredients for that process, such as chimpanzees and bonobos, which have proven that they cannot do them through the stone industry themselves if they do not have prior experience and if they are not taught that industry by man.

(5) The stone industry, which is carried out by some modern hominins, does not rise to the level of rationalization in humans, neither in terms of form nor in terms of purpose. Where the details of those three paths mentioned above do not apply to them. In addition, it was done through education, and in the end it is a traditional industry for the manufacture of man.

## Bibliography

- (1) Ahmed Omar Wanas Mazahir. Bronze Age culture in the coastal region of Tihama. An archaeological historical study through the results of archaeological missions. A series of refereed scientific deliberations for the annual meeting of the Society of the Kingdom of Saudi Arabia through the ages. King Saud University, Saudi Arabia 2013, p. 19.
- (2) Dora Billinington. Pottery art and science. Translated by Adnan Khaled and Ahmed Shawkat, Dar Al-Hurriya, Baghdad, Dr. 1974, p. 7.
- (3) Abdul Aziz Mohammad Ali Fattah. The Bronze Age in ancient Yemen, the third and first millennium BC. A historical study based on the results of archaeological missions in Yemen. University of Hodeidah, Vice Deanship of Postgraduate Studies, College of Arts, Department of History, 2022.
- (4) Mounir Abdul Jalil Al-Areqi. Studies in ancient Yemeni antiquities. Professor of Ancient Archeology, College of Arts, Ibb University, Yemen, 2020 BC.
- (5) Marni Golding. Snapshots from the pre-Islamic settlements in eastern Arabia, the ruins of the section, pickings from the pre-Islamic settlements.
- (6) Ahmed Abu Al-Qasim Al-Hassan, Abbas Sayed Ahmed Mohammad. Classification of archaeological pottery. The problem of theory and method. Adumato, Abdul Rahman Al-Sudairy Saudi Charitable Foundation, July 204, p. 49.
- (7) Alessandro de Magritte. The Civilization of the Bronze Age in Khawlan Al-Tayyal and Al-Hada, Republic of Yemen. Translated by Othman Al-Khalifa and Malik Barra, the Italian Institute for the Study of the Middle and Far East, Asimo Rome, pp. 56-55.
- (8) Wilkinson Edens Guest. Archeology of the Yemeni Highlands. Introductory chronology. Studies in Yemeni antiquities. The American Institute for Yemeni Studies, from the results of American and Canadian missions. Translated by Yassin Saeed Al-Khalisi. Translated Studies Series 4, Sana'a.

- (9) Burkhard Vocht Alexander Wasidov. A culture of patience on the Yemeni coast. Yemen in the country of the Queen of Sheba. Translated by Noureddine Ardouki. Institute of the Arab World, Damascus. 1999 pm p. 43.
- (10) Ahmed Omar Wanas Mazahir. Bronze Age culture in the coastal region of Tihama. An archaeological historical study through the results of the archaeological missions' work, a series of scientific debates for the annual meeting of the Society 3, the Kingdom of Saudi Arabia through the ages. King Saud University, Saudi Arabia, p. 23.
- (11) Laila Badr. Shabwa, the capital of Hadramout, the results of the work of the French-Yemeni archaeological mission, the French Center for Yemeni Studies, Sana'a, first edition, pp. 109-110.
- (12) Abdul Razzaq bin Rashid Al Maamari. The legacy of the stone ages and its role in shaping the villages and cities of the early southern Arabian Peninsula civilization. Symposium on the city in the Arab world in the light of archaeological discoveries, origin and development, Abdul Rahman Al-Sidari Charitable Foundation.
- (13) Dr. Abdul Razzaq bin Ahmed Rashid Al Maamari. The Later Paleolithic in Arabia. Refereed scientific journal concerned with antiquities, Department of Antiquities, College of Tourism and Antiquities, King Saud University.
- (14) Abd al-Razzaq Rashid al-Maamari. The desert archaeological pattern in the Neolithic period and its relationship to the southern heights of the island, Tihama, Hadramout and Oman, and the formation of the Arab race. Associate Professor of Prehistoric Archeology, Department of Archeology, Faculty of Arts, Sana'a University.
- (15) d. Abdul Razzaq Al-Maamari. The legacy of the stone ages in the Arabian Peninsula and its role in shaping the villages and cities of the early southern civilization of the island.
- (16) Abd al-Razzaq al-Maamari. Neolithic Studies in Southern Arabia, Criticizing Sources and Drawing Conclusions. Research, the twentieth issue of Shaban, July 2009.
- (17) Mohammad Abdul Qadir Bafaqih. History of ancient Yemen. The Arab Foundation for Studies and Publishing, The Arab Foundation, April 1985, pg. 187.
- (18) Khaled Abdo Mohammad Ali Al-Hajj. Significance of sites, drawings and rock scribbles in the western region of the Sana'a Basin. Republic of Yemen, University of Sana'a, Vice Deanship of Postgraduate Studies and Scientific Research, College of Arts and Humanities, Department of Archeology, Division of Ancient Antiquities 2019, p. 26.
- (19) Abdo Othman Ghaleb. Preliminary report on the survey and excavation in Bidbidah (Ma'rib). The first season, History and Athar, Issue 1, p. 11-13.
- (20) Edinley Brunner. The beginnings of irrigation in the book of Yemen in the country of the Kingdom of Sheba. Translated by Badr Al-Din Ardoki. Paris, Institute of the Arab World, 1999, p. 54\_53.